Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1 – 5. (Canceled)

6. (Currently amended) A computer readable storage medium including computer instructions executable on a computer for carrying out a method of characterizing objects generated during at least a partial run of a program, each object comprising a plurality of potential alternative properties, wherein the computer instructions enable the computer to:

a) instrument said at least partial run of said program to determine characterization information about each of said objects;

b) determine a ~~desirable~~ lowest cost property for each of said objects;

c) determine a ~~desirable~~ lowest cost one of said potential alternative properties for said objects;

d) determine a correlation between said ~~desirable~~ lowest cost property and said characterization information associated with said objects;

e) express the correlation as an allocation strategy; and

f) implement said allocation strategy to select among the alternative properties for an object subsequently created during an at least partial run of said program based upon characterization information about the subsequently created object.

7. (Currently amended) The computer readable medium as set forth in claim 6, wherein the computer instructions further enable the computer to determine the ~~desirable~~ lowest cost property by minimizing total cost of interaction among components during the initial partial run of said program.

8. (Previously presented)The computer readable medium as set forth in claim 6, wherein said

characterization information of an object comprises at least one of said object's class, classification of said object's creator object, and a code identification of said object's creation site.

9. (Previously presented)The computer readable medium as set forth in claim 6, wherein said alternative properties comprise a string representation selected from ASCII, EBCDIC, and UNICODE.

10. (Previously presented) The computer readable medium as set forth in claim 6, wherein said alternative properties comprise a data structure selected from hash table, tree, and compressed data structures.

11. (Currently amended) A method of characterizing objects generated during at least a partial run of a program, each object comprising a plurality of potential alternative properties, said method carried out in a computer system and comprising:

a) instrumenting an initial run of said program to determine characterization information about each of said objects;

b) determining a ~~desirable~~ lowest cost property for said objects;

c) determining a ~~desirable~~ lowest cost one of said potential alternative properties for one of said objects;

d) determining a correlation between said ~~desirable~~ lowest cost property and said characterization information associated with the one object;

e) expressing the correlation as an allocation strategy; and

f) implementing said allocation strategy to select among the alternative properties for an object subsequently created during the at least partial run of said program based upon characterization information about the subsequently created object.

12. (Currently amended) The method as set forth in claim 11, wherein the determining of a ~~desirable~~ lowest cost property in step (b) is carried out by minimizing total cost of interaction among components during the initial run of said program.

13. (Previously presented) The method as set forth in claim 11, wherein said characterization information of the object comprises at least one of said object's class, classification of said object's creator object, and a code identification of said object's creation site.

14. (Previously presented) The method as set forth in claim 11, wherein said alternative properties comprise a string representation selected from ASCII, EBCDIC, and UNICODE.

15. (Previously presented) The method as set forth in claim 11, wherein said alternative

properties comprise a data structure selected from hash table, tree, and compressed data structures.

16. (Currently amended) The method as set forth in claim 13 wherein expressing the correlation comprises generating an allocation strategy table that relates the object's class and its creator to the determined ~~desirable~~ lowest cost property during the initial run.

17. (New) The method as set forth in claim 16 wherein the allocation strategy comprises allocating each instance of the object's class to a same machine as its creator if each instance of the object class has been partitioned onto a machine of its creator.

18. (New) The method as set forth in claim 17 further comprising linking each instance of the object class with its creator such that the linked instance of said object class is moved if the creator is moved.